

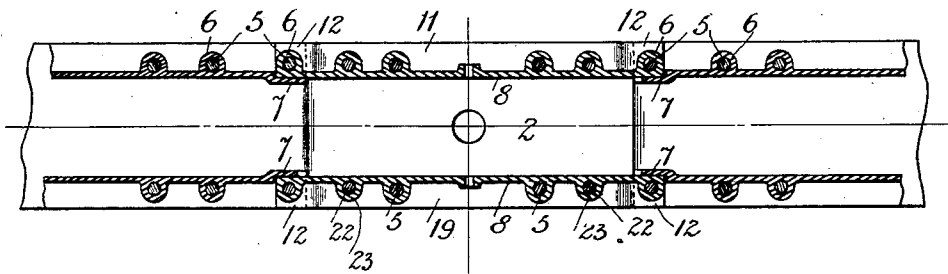
(No Model.)

H. C. WILLIAMSON.
BODY BOLSTER FOR CARS.

No. 580,203.

Patented Apr. 6, 1897.

Fig. 1.



*Fig. 2.*₃

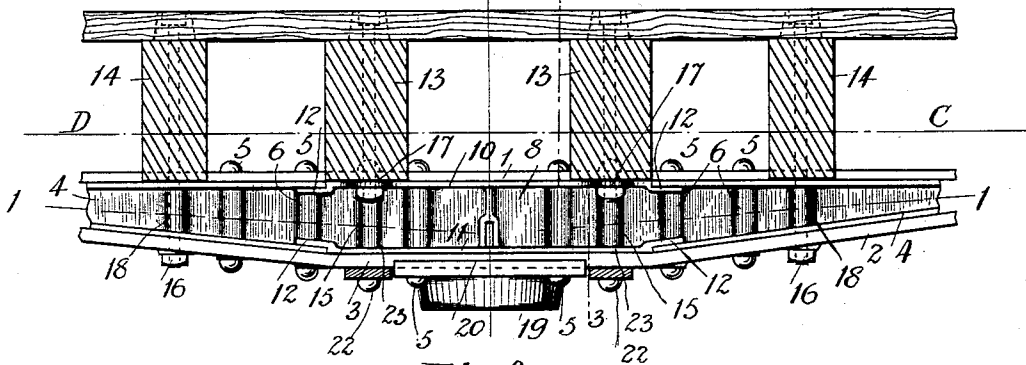
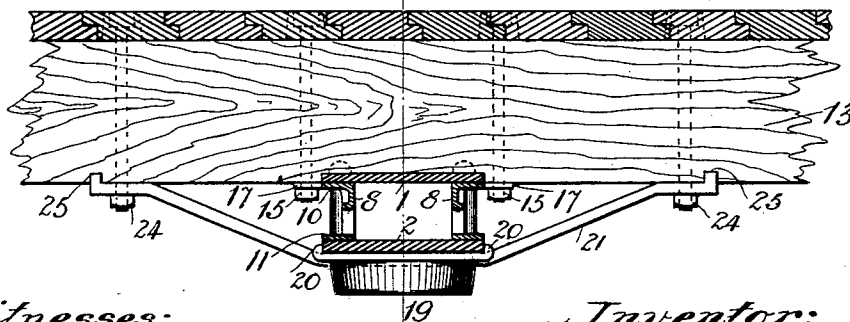


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY C. WILLIAMSON, OF MICHIGAN CITY, INDIANA.

BODY-BOLSTER FOR CARS.

SPECIFICATION forming part of Letters Patent No. 580,203, dated April 6, 1897.

Application filed December 16, 1896. Serial No. 615,945. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. WILLIAMSON, a citizen of the United States, residing at Michigan City, in the county of La Porte and State of Indiana, have invented certain new and useful Improvements in Body-Bolsters for Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a novel construction in a body-bolster for cars, the object being to provide a strong, durable, and efficient device of this character; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a horizontal section of a body-bolster constructed in accordance with my invention, taken on the line 1 1 of Fig. 2. Fig. 2 is a view in elevation of the same. Fig. 3 is a transverse section of the same on the line 3 3 of Fig. 2.

As in the construction of low cars the body-bolster must necessarily be of great strength the small space allowed for it necessitates a particularly strong construction combined with lightness. In my construction I have succeeded in combining lightness and strength in a bolster of necessarily limited depth.

In the drawings I have shown a construction particularly adapted for furniture and other low-platform cars in which the center sills are employed as draft-beams. This bolster comprises a tension member 1 and a compression member 2, the ends of which are secured together in any suitable manner. The end portions of said member 2 diverge toward the center portion 3, which is parallel with the member 1. End struts 4 are mounted between the end portions of said members 1 and 2 and are preferably secured thereto by means of rivets 5, which pass through said members 1 and 2 and through openings in the enlarged portions 6 of the webs of said struts. The inner ends of said end struts are slightly reduced or offset, as at 7, to receive the outer ends of the webs 8 of said middle struts, which extend between the middle portion 3 of said member 2 and the middle portion of

said member 1. Said middle struts are secured between said members 1 and 2 by means of rivets 5 passing through openings in similar enlarged portions 6 in the webs thereof. The flanges 10 and 11 of said middle struts are offset at their ends, as at 12, to receive the inner ends of the flanges of said end struts.

The sills 13 and 14 of the car are gained to receive the upper member 1 of said bolster, said bolster being secured to said sills by means of bolts 15 and 16, said bolts 15 passing through projecting portions 17 of the flanges 10 of said middle struts, and said bolts 16 passing through the members 1 and 2 and through openings in the enlarged portions 18 of said end struts. The said projecting portions 17 of the flanges of said middle struts are also braced by means of ribs 17^a, which extend between said webs of said middle struts and said projecting portions 17 and form brackets or braces. The said projecting portions 17 have the effect of increasing the extent of the base or portion of said bolster having contact with the sills, and without weakening the sills serve to hold said bolster more securely against canting.

It will be obvious that as the draft center (indicated by the line D C) is situated above said body-bolster the latter will be very liable to cant in case of a sudden thrust, and to prevent this I have provided straps 21, secured at their middle portions to the lower face of said member 2 by means of rivets 22 passing through the same and said members 1 and 2 and through the enlarged portions 23 of the webs of said middle struts. The end portions of said straps 21 extend upwardly to the sills 13 at an incline and are secured to the latter by means of bolts 24 passing through the ends of the same. To further secure said straps against movement, the outermost ends thereof are flanged and let into gains 25 in said sills.

In the foregoing construction I have shown the rivets passing through the enlarged portions of the webs of the struts for the reason that there is so little space between the members 1 and 2 that it is very difficult to secure them in any other manner.

I claim as my invention--

1. In a body-bolster, a tension and a compression member, end struts mounted be-

tween the end portions of said members, and middle struts mounted between said end struts, said struts being secured by means of rivets or bolts passing through tension and compression members and through openings in enlarged portions of the webs of said struts, said struts being adapted to overlap each other at their meeting ends.

2. In a body-bolster, a tension and a compression member, end struts secured between the end portions of said tension and compression members and provided at their inner ends with offset portions, middle struts mounted between the middle portions of said tension and compression members and overlapping said end struts, the webs of said middle struts being adapted to enter said offset portions of said end struts, and the flanges of said middle struts being offset at their ends to receive the inner ends of the flanges of said end struts.

3. In a body-bolster, a tension and a compression member, end struts secured between the end portions of said tension and compression members and provided at their inner ends with offset portions, middle struts mounted between the middle portions of said

tension and compression members and overlapping said end struts, the webs of said middle struts being adapted to enter said offset portions of said end struts, and the flanges of said middle struts being offset at their ends to receive the inner ends of the flanges of said end struts, said end struts and middle struts being secured between said tension and compression members by means of rivets passing through openings in enlarged portions of the webs of said struts and through said tension and compression members.

4. In a body-bolster, tension and compression members, end struts and middle struts mounted between said tension and compression members, outward projections on said middle struts adapted to receive bolts by means of which said bolster is secured to the sills and adapted to increase the base or contact portion of said bolster and hold said bolster securely against canting.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY C. WILLIAMSON.

Witnesses:

E. J. BOILEAU,

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